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ABSTRACT

This report describes the outcomes of a study that investigated how Chinese educators and researchers have implemented programs for the gifted in 11 elementary schools (28 teachers and 112 gifted students), in Taiwan. The most frequently used alternatives for gifted students in Taiwan were found to be separate classes and pull-out programs. A stringent examination is administered to all elementary school students in order to screen them for the most select high schools, which are similar to elite magnet schools that serve gifted students. The results of the study indicate that Taiwanese teachers struggle with many of the same problems as American teachers and list many of the same characteristics for gifted students. Chinese teachers saw the gifted as asking more questions, being more adaptive, more flexible, more confident, and more motivated. Like their American counterparts, the Chinese teachers talked about nongifted students bullying and taunting the gifted and were troubled by what to do with nongifted children who found their way into the gifted programs. The Chinese schools excelled by instituting uniform testing processes in all the schools to identify the gifted, with a heavy reliance on IQ tests. (Contains 14 references.) (CR)

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Gifted Programs from a Chinese Perspective

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Abstract

This study involved collecting interview data from 11 elementary schools (28 teachers and 112 gifted students) in Taiwan, China. The research attempted to determine how Chinese educators and researchers have implemented programs for the gifted. How do these programs compare with American programs for gifted students? What adaptations have Chinese educators made that can be exported back to the United States? How do Chinese teachers perceive their gifted students and how do they view the programs that have been implemented to serve these students?

From the narrative portions of the interviews with teachers we extracted seven themes: Chinese Adaptations; Chinese Empirical Definitions of Giftedness; Challenges for Teachers; Socialization -- Advantages Come With a Price; Authority -- Chinese Double-Edged Sword; Inservice Shortfalls; Unresolved Problems. These themes provide insights from experienced teachers in a number of relevant areas. Some of the themes reaffirm issues raised by American teachers and others illustrate innovations that have implications for gifted educators everywhere.

Educational Importance

In the United States the most frequently used types of programs for the gifted include: separate classes, pull-out programs, separate schools (magnet programs or schools), and within class programs (Gallagher, Weiss, Oglesby, & Thomas, 1983). In Taiwan, at the elementary school level, the most frequently used alternatives are separate classes and pull-out programs. In Taiwan a stringent examination is administrated to all elementary school students in order to screen them for the most select high schools. The most sought after high schools are in reality elite magnet schools that serve gifted students.

American theorists, researchers, and educators have developed many theories, practices and innovative materials that have been exported overseas -- some to developing countries such as Taiwan. It is important to determine how these ideas have been implemented with students that differ from American students. How have Chinese educators and researchers modified these innovations? What adaptations have Chinese educators made that can be exported back to the United States? How do Chinese teachers perceive their gifted students and how do they view the programs that have been implemented to serve these students? These are the questions we addressed with this qualitative study.

Objectives

The objectives of this study are: 1. Extract themes from interviews with teachers of the gifted; 2. Compare these themes with those derived from American teachers (see Campbell & Verna, 1998); 3. Examine how theoretical American ideas have been modified or altered during the implementation process in China.

Methods

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For each school included in this study at least three site visits were made. Interviews were collected from teachers and students participating in talented and gifted (TAG) programs. The interview guides followed a structured format but were organized to encourage open-ended comments and discussions (Bogdan & Biklen, 1982; Miles & Huberman, 1984; Rist, 1982a, 1982b). The topics used in the interviews were extracted from Orenstein's (1984) study of effective TAG programs. Each interview was audiotaped, transcribed, and computerized. The narrative sections of the teacher interviews were analyzed separately for in-depth analysis. Finally, program descriptions were collected whenever they were available and analyzed separately.

The interviews were organized within four areas: programs (questions dealt with curriculum, organization, supplies, grouping); identification (questions involved with definitions, the mechanism for identifying gifted students, the stakeholders used in the identification process, characteristics of the students selected); staff (questions concerned the experience and training of the teachers, their approaches to maintaining and enhancing their skills, how teachers were selected, how they were supervised); evaluation (questions concentrated on whether the program had been evaluated, if follow-up activities of students had been undertaken, strengths and weaknesses of the program, and the participants' evaluation of the program).

The teacher interviews took two hours to conduct and were supplemented by any available descriptive information that had been developed by each school. The student interviews took one hour to complete and were used to verify the accuracy of the teachers' information. The student interview data are summarized in another report (Campbell & Wu, 1994).

The schools' descriptions of their gifted programs underwent a content analysis. We also used this data to verify information collected with the interviews. In addition, we extracted themes from the narrative portions of the interviews (Schatzman & Strauss, 1973; Patton, 1980; Goetz & Lecompte, 1984). The triangulation of methods for this study include the content analysis of documents together with interviews of participants at two levels (teachers, students); therefore, we are able to examine the accuracy of each respondent's answers with other participants in the program. This process assures a measure of reliability and validity.

Translations

The interview guides for this study underwent several translations. The first translation used two translators in the United States, and two more translators in Taiwan. One translator was responsible for the forward translation (English to Mandarin), and the other was assigned the task of the back translation (Mandarin to English). After both sets of translations were completed, the different versions were assembled and synthesized. The interviews were conducted in Mandarin and tape recorded. The interviews were then translated into English by two translators. The first translated the interviews from the tapes, the second supervised the translation by listening to the full interviews again in the hope of correcting any misinterpretations or by adding material missed by the first translator.

Data Sources

The data for this study were collected from 11 elementary schools (28 teachers and 112 gifted students) in Taiwan, China. Chinese educators have used separate classes for the gifted for decades. More recently many schools have introduced gifted programs that include pull-out programs. Both types of programs are designed for the top 3% of the elementary students at each grade in the school. Typically, elementary schools are large in China with an average size of over 1,000 students for six grades. One of the schools in our study has a student population of 10,000 students with more than 1,000 per grade. For each of these schools the gifted program consists of one class per grade. This policy made acceptance more selective in the largest school.

Results

From the narrative portions of the interviews with teachers and students we extracted the following seven themes: Chinese Adaptations; Chinese Empirical Definitions of Giftedness; Challenges for Teachers; Socialization -- Advantages Come With a Price; Authority -- Chinese Double-Edged Sword; Inservice Shortfalls; Unresolved Problems. These themes provide insights from experienced teachers in a number of relevant areas. Some of the themes reaffirm issues raised by American teachers, and others illustrate innovations that have implications for gifted educators everywhere. Theorists need to hear these voices to learn the problems and challenges that school personnel face when they teach gifted students.

Chinese Adaptations

The Taiwanese schools involved in this study systematized the identification process. All the schools used structured screening committees composed of administrators, guidance personnel, and outside testing experts (usually university professors). In all of these schools the gifted were identified with two waves of testing. The first wave involved the administration of group intelligence tests where every child in the school was tested. The next round involved individualized administered IQ tests (usually Standford-Binet tests) by university teams. None of the American schools where we collected data could match this approach.

Stevenson (1983) compared student's math and reading achievement in Taiwan, Japan, and the United States. He used many of the same schools that were used in this study. He found that the Taiwanese students outperformed the American students in math by a large measure. It is evident that the high level of structure that we found in the Taiwanese schools, especially in the math classes, was an important factor in this achievement. We observed classes in every one of these schools and found that all students, regardless of ability, used the same textbooks and were required to cover the same curriculum. The supervisors were diligent in making sure that all the teachers covered the required material. This is certainly not the case with the American schools.

The approach in most of these schools was to cover the basics in the early grades and then to open up the curriculum in later grades. Some of the teachers developed their own curricula as a way of enhancing their program. Several speeded up the math curriculum. Some introduced science experiments with the extra time saved.

Two teachers introduced the Chinese classics to the children. In this way they could give the gifted children some of the rich cultural heritage of their ancestors. Another very imaginative teacher made the students keep diaries. The children recorded their experiences each day, and this practice helped to develop their writing and communication skills.

Other teachers saw the need to develop the leadership skills of their students. The teachers told the children that they had an obligation to their country to use their gifts in leadership roles. Many of the schools mentioned man power needs as a major reason for developing the talent of the gifted. This reasoning is also employed in Mainland China.

Some teachers told us that they were trying to teach democracy in their classes. They felt that Taiwan needed to learn the process first in school. Again, the gifted could exert leadership in this important area.

Empirical Definitions of Giftedness

With their long experience in working with the gifted, the Chinese teachers developed their own definitions of giftedness. Their empirical definitions are interesting combinations of the characteristics of gifted students (see Tables 1.1 and 1.2). On one dimension the teachers saw the gifted as "active learners" who were able to take responsibility for learning. They were self-motivated and "wanted to work on their own." The teachers thought that the gifted could better "think for themselves" and frequently had their own opinions about things. Sometimes they developed very "different points of view" that set them apart. The teachers also felt that the gifted could "stand on their own" in many areas.

Another dimension of giftedness involved adaptability, versatility, and flexibility. They found that the gifted had the ability to adapt better or adjust to their environment. This meant that

the children could better understand new topics or assignments that required more imagination. The gifted were found to be able to change more quickly when it was required.

The teachers also believed that they were better at accepting challenges and possessed a number of school related skills such as long attention spans, good organization skills, and good memorization skills. They found that the gifted asked a lot of questions, were more confident, enjoyed reading, and had better comprehension of what they read.

Finally, the teachers thought that their gifted students were more talkative. They spent "more time thinking than acting," and they "...think faster than they can act." This tendency toward contemplation rather than action may be a Chinese cultural trait for the gifted.

Socialization: Advantages Come With a Price

In a study of Mathematics Olympians, Campbell (1996) found that these exceptionally gifted American math students were often intimidated during the elementary school years. Campbell thought that this anti-intellectual behavior was strictly an American phenomena. It is therefore surprising to find the same negative behavior happening to gifted children in China. The teachers told us that some of the gifted boys were less mature and smaller in stature than other boys in the same grade. This was due to the fact that they had skipped earlier grades. This liability made them vulnerable to bigger boys from the regular classes. One teacher told us that her gifted students were targets of less talented children. Many were bullied on the playground. She told them that "you will do more for your country than those pushing you around. Let them have their space." This teacher decided not to intervene in these confrontations, instead she tried to teach the children how to cope with peers who were less talented. This peer problem was reported by several teachers. One teacher told us that some students in the regular classes "laugh at the gifted because their report card grades are not better, some are even worse." Within the gifted class there is a great deal of competition for grades and this means that some students were at the bottom of the gifted class. These are the children that had the most trouble in dealing with the high achieving students in the regular classes.

Some teachers reported that a few of their gifted students became arrogant, and this behavior generated hostility. Other teachers observed that a small segment of the gifted children had social problems both within the gifted class and also in the larger school setting. All of these examples helped us to select the label for this theme -- advantages come with a price.

Another aspect of this socialization theme involved gender stereotypes. Campbell and Wu (1994) studied gender related behavior in quantitative studies of 5th- and 6th-grade students in Taiwan. They did separate analyses for gifted and nongifted children and found extensive evidence of differential socialization among the nongifted. Boys were pressured and monitored more and given more resources. But these differences did not occur for families of gifted children. They found that the families of gifted girls encouraged them to excel and to maximize the development of their talents.

It is therefore surprising to find that the teachers of the gifted engage in so many stereotypical behaviors (see Table 2). In this table we list the most frequent items mentioned for the girls in the first column and those for the boys in the second column. The girls were found to be less confident, afraid of math, and to prefer nontechnical subjects such as language or social studies. The girls were also found to study and work harder, to be more careful, more sensitive, more patient and considerate. Furthermore, they were more mature and cared more about their grades.

The boys liked technical subjects such as math and science and did better in them. They were also reported to be more active in class, more creative, more competitive, but more careless, less patient, and much less mature.

Both sets of findings suggest that differential socialization is still occurring in China. Girls are being socialized along one path and boys along another path. These conclusions parallel data reported by Campbell and Verma (1998) for American teachers. Both studies show that gender equity is occurring at a very slow pace on both sides of the pacific ocean.

Challenges for Teachers

At the time this study was conducted there was only one set of curricula in Taiwan. For each subject the Taiwan Provincial Institute for Elementary School Teachers Inservice Education was responsible for the development of texts and for all inservice training. This Institute also conducted research studies in the different subject areas. The teachers in the gifted classes found that the one size fits all texts to be very limiting. They expressed the need to adapt curricula on their own "because none exists." This represents a major challenge for them. One teacher thought that "a national effort" is needed to develop specific texts for the gifted. Another teacher believed that the gifted had a "bigger appetite" for learning, and the challenge for the teachers is to find the content material to satisfy this appetite.

One challenge these teachers face is in the level of preparation needed. One teacher expressed this idea in these words, "... the gifted will argue with you -- pin you down --they want reasons for things. You need to know your material much better. The average student will not do this -- they will believe you." This teacher found that he could get by with limited preparation in classes with average students. In the gifted class he needs to have a much deeper understanding of the content of the lesson.

Another challenge facing these teachers concerns learning how to deal with gifted students in different ways. The teachers think that teaching the gifted was more of a challenge and more stressful. Many of the teachers believed that teachers need to be much more flexible with the gifted. One key informant advised, "don't kill patience -- you must let them think about a problem -- let them solve it on their own." Another teacher told us, " Let them develop their own ways of doing things. Don't insist on your own way." Both of these teachers expressed the need to give the gifted the time needed to tackle problems on their own. Another teacher advised "giving them more freedom" so that they could explore problems by themselves.

A related challenge involved developing different skills. For example, one teacher said that teachers needed to develop listening skills with the gifted. Another said that teachers needed to recognize the wide range of individual differences among the gifted students. He felt that teachers needed to learn how to deal with gifted students at their own level of talent.

The teachers told us that they needed to develop many questions each day in order to interest these talented students. One teacher also believed that the teachers need to help the children to learn to ask deeper questions. The teachers think that the gifted are naturally competitive and that they need to learn how to channel this trait in their classes.

These teachers think that the gifted pick up material so quickly that they trend to become lazy. They also think that this laziness needs to be challenged. They advocate putting pressure on such students.

The teachers advise against having expectation that are too high for the gifted. Instead, they advocate learning how to develop the special gifts of each child, to learn to "look for the marvelous potential inside the gifted."

Inservice Shortfalls

The teachers in Taiwan who are assigned to teach the gifted have many more courses to prepare them than American teachers with similar assignments. The courses involve both college and inservice experiences. We asked these teachers to evaluate the effectiveness of this training and they responded with some strong reactions. Some teachers think that they need more training because the gifted require more skills than they possess. Most teachers told us that the bulk of their college and inservice courses are simply impractical. Almost all of them call for practical things that they can use in their classrooms. Here were some of their suggestions: "not enough practical information," "workshops full of impractical things," "need more practical information," "courses give a general idea instead of practical technology." For example, the pull-out teachers want information on how to prepare lessons in this new format. Many teachers need information on how to adapt curriculum for gifted students.

The teachers also complained that much of their course work is too theoretical and not really useful. They want information on "how to translate theory into practice." One experienced teacher made this comment about the college teachers who taught courses for the gifted, "...these professors are only interested in getting data from us not in helping teachers reach the gifted." This evaluation shows the depth of his frustration. He believes that the college professors use their contact with these teachers for their own self-serving ends -- to do research studies and to publish articles and books.

For many teachers the antidote to these course work problems is to learn from each other. One teacher spoke for many others by saying "teachers must develop their own methods -- come up with everything on your own." The teachers believed that their daily interactions with the gifted gave them the motivation and experience needed to develop solutions that worked.

Authority -- Chinese Double-Edged Sword

The Confucian value of respecting elders is very much ingrained in China. This respect naturally goes to one's parents, but it frequently extends to those in positions of authority. It is very rare to hear direct criticisms publicly stated about people in high places. In China there is a strong belief that the traditions developed over 5,000 years represent one of the great human achievements. (Who could argue with this fact?)

In the education context, this authority extends to the principal of the school and to his or her supervisory staff. Teachers are very cautious to utter complaints even when things are obviously going wrong. However, these traditions involve some level of structure and such structure is evident in every school. These traditions are very difficult to change. The name we have given this theme, Double-Edged sword, refers to the strength that comes with respect for authority (one blade) but this respect can also have a downside (the other blade). In China, the way schools and classes are organized, the testing practices, and the curriculum have become traditions. These practices and products represent structures that are accepted by most teachers and administrators. But some of these practices and products are weaknesses that undermine the schools output.

One example concerns the curriculum which has been developed primarily for the average student. Some of the teachers of the gifted viewed this curriculum as a straight jacket. They think that change is impossible. There is no room for innovation. Consequently, there is more of a cry for flexibility from the teachers. Because of this lack of flexibility, the teachers cannot experiment with their teaching to the extent that American teachers can.

Another Double-Edged sword example concerns authority. Some of the gifted programs under went very professional evaluations. A few even tracked the gifted at the next academic level. But those in authority did not find the need to keep the teachers informed about these evaluations. (Elders need not explain things to younger people.) None of the teachers in the 11 schools have ever seen the results of the evaluations of their gifted programs. Without such information they suspect that the results have turned out poorly. One group of teachers heard that 10% of the gifted class did poorly on the high school entrance exams. Another group of teachers in another school thought that the supervisors covered up the negative results to protect their jobs. The bottom line is that the virtues of respect for those in authority prevent the free distribution of information that can help the gifted program grow. Evaluations should be conducted with the intent of helping the teachers in the program to improve it.

Unresolved Problems

Under this theme we assembled several unresolved problems. The first set deals with the systematized identification process. Some teachers mentioned that very few children from rural areas have high enough IQs to be admitted to the gifted program. This means that the program serves a disproportionate number of urban children. This problem is more serious in Mainland China where 70% of the population lives on farms. In our view this low scoring of rural children could be due to a lack of opportunities. Children living on farms just do not have the complex

stimulation that comes from interacting with many more people or from the exposure to as many books and periodicals.

Another problem dealing with testing concerns what to do with high achieving children who do not score high enough on the IQ tests. Every school mentioned this problem. These children were placed in regular classes but their exceptional grades put pressure on teachers and administrators to admit them. School personnel see these children as gifted and are impressed by their strong motivation and their good work skills. After considerable debate within each school, these children are gradually admitted to the gifted classes.

A third identification problem concerns underachieving students with high IQs. Every gifted class has such children, and the teachers complain that it is difficult or impossible to remove them from the class. The Americans have the same problem (Campbell & Verna, 1998) and are unable to solve it. Rimm (1997) feels that the underachievement of gifted students is a national epidemic, and the data from this study suggest that it is an international epidemic.

Another identification problem that effects almost all the schools concerns the parents' buying the IQ tests used by the schools and coaching their child with these exams. This practice is rumored to be quite common in Taiwan. Another strategy that parents use to gain admittance to the gifted program is for the family to move to a school where admission is easier. Both examples show the lengths that parents in Taiwan will go to get their child admitted to the gifted program. We are, however, skeptical about both practices. The reason for our skepticism is because we doubt that many families have the financial resources needed to move so easily. Nor do we think the average parent can buy all the different forms of each of the IQ tests that are used by the schools and be able to coach the child effectively for such a complex task. Another common complaint concerns grading. The teachers told us that almost every child expects 100% on every test in every subject. The parents had the same unrealistic expectations. Obviously the teachers resist this pressure and grade exams accordingly.

All of these identification problems can be solved by more flexibility within the schools, but the testing process, once installed, is seen as another form of Chinese tradition. This is another example of the Double-Edged sword theme mentioned above.

Discussion

It is startling that teachers separated by more than 12,000 miles in very different cultural settings in a developing country are so very much like American teachers. Both sets of teachers struggle with many of the same problems, both have difficulty dealing with gender equity, and both see gifted students in much the same ways. The seven themes that were extracted in this study have more commonalties than differences with the themes extracted from American teachers in a parallel study (see Campbell & Verna, 1998).

Both sets of teachers have complex empirical definitions of the gifted, and both list many of the same characteristics for these talented students. Both groups of teachers found the gifted naturally competitive with each other. The Chinese teachers saw the gifted as asking more questions, being more adaptive, more flexible, more confident, and more motivated. The American teachers would agree with each of these specifications. Both sets of teachers talked about nongifted students bullying and taunting the gifted, and both mentioned a small percentage of potential social misfits among the gifted. Finally, both were troubled by what to do with nongifted children who found their way into the gifted program.

There are also some important differences among Chinese and American teachers of the gifted. The Chinese schools excel by instituting uniform testing processes in all the schools to identify the gifted. The one weakness in this area is a heavy reliance on IQ tests. The American schools use a greater variety of instruments to identify the gifted. The Chinese schools in this study also have better contact with accompanying colleges and universities than any American school where we collected data. This infusion of expertise helps the schools to better evaluate the gifted programs. But these evaluations did not reach the teachers and we believe that the reason for this lack of communication is due in part to a tendency of Chinese teachers to defer to authority (theme, authority -- Chinese Double-Edged sword).

We observed this theme in several other contexts. For example, curriculum is much more structured in China than it is in the United States. This puts a great deal more pressure on teachers of the gifted because they have to start from scratch in developing materials. They also have more trouble fitting such material into their courses because of the need to cover every last scintilla of the required curriculum.

The extra contact with colleges and universities causes some other problems. The teachers found much of their inservice training to be impractical (theme, inservice shortfalls) and useless. One of the teachers saw the professors as using their contact with the gifted as a way to collect data for their books. This teacher spoke for others in feeling that the professors had a lack of commitment in helping them to find practical things that would work better.

Finally, we lumped a number of unresolved problems into a theme. Some of these problems relate to the fact that China is a developing country where a portion of the population lives in rural areas. Other problems relate to the value that is placed on education in the Chinese culture. For example, some parents go to extraordinary lengths to get their child admitted to the gifted program. Another problem concerns what to do with high achieving children who excel in regular classes. Most American schools simply absorb such children into the gifted program. But for the Chinese this is a much more difficult decision.

We conclude with the strong belief that more cross-cultural and cross-national studies like this one should be conducted. The United States is connected economically to the rest of the world via trade. The global economy that has resulted from this development continues to have profound effects. It is our belief that a globalization of educational research will have even more far reaching effects.

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Table 1.1 Empirical Definitions of Giftedness	
Active Learners	Have Own Opinions
Accept Challenges	Independent Thinking
Adaptive	Integrative Ability
Ask Lots of Questions	Long Attention Span
Can Teach Themselves	More Talkative
Enjoy Reading	More Vivid
Flexible	Self-Confident
Good Comprehension	Self-Motivated
Good Memorization	Versatile

Table 1.2 Empirical Definitions of Giftedness
Can Give a Different Point of View
Can Think Faster Than They Can Act
Children Who Adjust to their Environment
Has Special Interests --Will Devote Long Time to Them
Motivated Can Work on their Own
Organize Themselves Well
Spend More Time Thinking Less Time Acting
Stand on their Own
Want to Learn More on their Own

Table 2 Gender Socialization	
Girls	Boys
Afraid of Math	Better in Math
Care More About Grades	Better in Science
Less Confident	Less Mature
Like Chinese Language Lessons	Less Patient
More Careful	Like Independent Study Better
More Considerate	Like Math Better
More Disciplined	Like Science Better
More Mature	More Active
More Patient	More Careless
More Sensitive	More Competitive
Seem to Care More	More Creative
Study Harder	
Work Harder	